

## REMARKS

### A. Objections to Drawings

In the Office Action of February 11, 2004, the drawings were objected to for several informalities. For example, the drawings were objected to for lacking Figure 1. Applicant traverses this objection in that Figure 1 was supplied as evidenced by the return date stamped post card regarding the filing of the application on July 29, 2002. A copy of the post card is attached. Despite the impropriety of the objection, Figure 1 is being supplied herewith. Accordingly, the objection has been overcome and should be withdrawn.

The drawings were objected to because the reference numerals S110 and S135 were not adequately disclosed in the specification. The specification has been amended to describe items S110 and S135. Accordingly, the objection has been overcome and should be withdrawn.

The drawings were objected to because some legends of FIGS. 3 and 4 are not translated into English. FIGS. 3 and 4 have been amended in the present Amendment so that all legends have been translated into English. Accordingly, the objection has been overcome and should be withdrawn.

The drawings were objected to for not showing resultant signal nsi in FIG. 4. FIG. 4 has been amended to show signal nsi. Accordingly, the objection has been overcome and should be withdrawn.

### B. Objections to Specification

The specification was objected to for using a particular heading. The heading in question has been amended in the manner suggested by the Examiner. Accordingly, the objection has been overcome and should be withdrawn.

**C. Objections to Claims**

Claims 31 and 32 were objected to because their dependency was improper. Applicant notes with appreciation that the dependency of the claims have been corrected by the Examiner so that the claims depend from claim 17. Such corrections are reflected in the present amendments of claims 31 and 32. Accordingly, the objection has been overcome and should be withdrawn.

Since the amendments made to claims 31 and 32 are being made to correct obvious typographic errors, the amendments are not being made for reasons related to patentability as defined in *Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 234 F.3d 558, 56 USPQ2d 1865 (Fed. Cir. 2000) (*en banc*), *overruled in part*, 535 U.S. 722 (2002).

**D. 35 U.S.C. § 102**

Claims 17 and 31-33 were rejected as being anticipated under 35 U.S.C. § 102(b) by Langley. Applicant traverses this rejection. In particular, claim 17 recites “determining an optimized value of a time constant of a reference model.” The Office Action has relied on the following passage as anticipating the recited “determining” process”:

[T]he control system must arrange to adjust  
the tuning of the resonator accordingly.  
(Col. 7, ll. 40-42).

The passage does not mention determining an optimized value of a time constant of a reference model. Indeed, Langley discloses “tuning” of an active resonator which is different than the recited “determining.” Since no other passage of Langley discloses the recited “determining” process, claim 17 is not anticipated by Langley and so the rejection is improper and should be

withdrawn.

The rejection is improper for the additional reason that Langley fails to disclose determining a time constant that “is designed as a 2<sup>nd</sup> order time-delay element of a machine.” It is noted that the Office Action has failed to identify where Langley discloses such a time constant. The reason is that Langley does not disclose the recited time constant. Accordingly, Langley does not anticipate claim 17 and the rejection is improper and should be withdrawn.

As pointed out above, the Office Action has failed to identify any credible portions of Langley that support the rejection. If the present rejection is repeated in a subsequent Office Action, Applicant requests that the Office Action clearly identify where Langley anticipates each recited element of the claim. If no such identification is provided, then it should be deemed as evidence that the rejection has no merit.

Besides not being anticipated by Langley, claim 17 is not rendered obvious by Langley since there is no motivation in Langley to either 1) determine an optimized value of a time constant of a reference model or 2) determine a time constant that “is designed as a 2<sup>nd</sup> order time-delay element of a machine.” Without such motivation, the claims should be allowed.

**E. Obviousness-type Double Patenting**

Claims 17, 31 and 32 were rejected under the judicially created doctrine of obviousness-type double patenting as being obvious in view of claims 1-3 of U.S. Patent No. 6,274,995. Applicant traverses this rejection because an improper analysis is being applied. The question is whether the invention of pending claims 17, 31 and 32 of the present application would have been obvious in view of claims 1-3 of U.S. Patent No. 6,274,995. A comparison of the claims shows that the rejection would have some merit only if there was motivation to 1) delete the

increasing the value process of claim 1, 2) delete the determining at least one resonant frequency of claims 1 and 2, 3) deleting the calculating/determining at least one filter parameter of claims 1 and 2, 4) adding a detecting an oscillation frequency to claims 1 and 2 and 5) adding determining an optimized value of a time constant to claims 1 and 2. However, the Office Action has failed to provide any motivation from the claims 1-3 alone of U.S. Patent No. 6,274,995 for performing any of the five changes mentioned above. There certainly is no motivation in claims 1-3 alone<sup>1</sup> of U.S. Patent No. 6,274,995 to make all five recited changes. Without such motivation, the rejection is improper and should be withdrawn.

**F. Claims 18-30**

Applicant notes with appreciation that claims 18-30 have been indicated to contain allowable subject matter. Claims 18 and 21 are being amended in independent form. Accordingly, claims 18 and 21 and their dependent claims 19, 20 and 22-30 should be allowed.

Please note that claims 18 and 21 have been amended so as to incorporate subject matter that was inherently present in the claims. Accordingly, the amendments of claims 18 and 21 are not being presented for reasons of patentability as defined in *Festo*.

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<sup>1</sup> It is a well known tenet of patent law that the patent disclosure of U.S. Patent No. 6,274,995 cannot be used as prior art in the present obviousness-type double patenting rejection. *General Foods Corp. v. Studiengesellschaft Kohle mbH*, 972 F.2d 1272, 1281, 23 USPQ2d 1839, 1846, (Fed. Cir. 1992).

**G. Claims 34 and 35**

Applicant notes with appreciation that claims 34 and 35 have been allowed.

The Office Action has provided a statement of reasons for the allowance of claim 34.

Applicant traverses the statement in that there are broader and other reasons why the claim is allowable.

**H. New Claims 36-39**

New claims depend directly or indirectly on claim 18 and so are patentable for at least the same reasons that claim 18 is patentable as mentioned above in Section F.

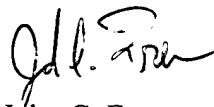
Please note that claims 36-39 are being presented to provide additional coverage for the method of claim 18 and so are not being presented for reasons of patentability as defined in *Festo*.

**CONCLUSION**

In view of the arguments above, Applicant respectfully submits that all of the pending claims 1-39 are in condition for allowance and seek an early allowance thereof. If for any reason, the Examiner is unable to allow the application in the next Office Action and believes that an

interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorneys at (312) 321-4200.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John C. Freeman".

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Dated: May 11, 2004

**In the Drawings:**

Applicant is submitting a proposed correction for FIGS. 3 and 4 as amended on March 22, 2002 and approved in the Office Action mailed on February 11, 2004. Newly proposed FIGS. 3 and 4 overcome an objection made in the Office Action. In particular, original FIGS. 3 and 4 were objected to for failing to translate several legends. FIGS. 3 and 4, as presently amended, have added translated legends.

The additions have been indicated in red ink. Furthermore, it is not believed that the corrections involve new matter. Accordingly, please indicate whether the corrections are acceptable in the next Office Action.